

**Title:** Method and System for Providing Real Estate Information Using a Computer Network, Such as the Internet

**Related Patent Application(s)**

This application claims priority to, and incorporates in full by reference, United States Provisional Patent Application Serial No. 60/200,169, entitled "Methods and Systems for Providing Real Estate Listing Information and Related Services Using a Computer Network, Such as the Internet," filed April 27, 2000.

**Field of the Invention**

The present invention relates generally to the field of real estate. More particularly, the present invention relates to a method and system for providing real estate information using a computer network, such as the Internet.

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## Background

Conventionally, real estate agents use the multiple listing service (MLS) system to locate properties of interest for their clients, to conduct comparative market analysis (CMA) for particular properties, and to carry out other real estate services. Agents typically conduct searches for properties using a computer interface terminal associated with the MLS. For example, an agent may specify a particular price range, MLS area, minimum number of bedrooms, and minimum square footage, and the MLS computer system will return a search result of properties in the MLS database fitting those specifications. The agent may print the search results and save the search criteria for future use, if desired, using the MLS system in order to carry out the agent's work.

In conventional systems, an agent can save search specifications. Thus, when monitoring real estate listings for a client, the agent may periodically conduct the search again, using saved search specifications, in order to find new information. The agent may adjust the date range of the search to seek only recently-changed property information. For example, the agent may set the start date as the date of the agent's last search in order to seek properties added to the MLS database since that date.

In addition, some agents examine a printed sheet issued daily that contains a list of listing modifications (new property listings and changes to listings) (often called a "hot sheet"). The agent may see a property of interest on the printed sheet, and access more complete property information for the listing using the MLS system. When examining the "hot sheet," the agent typically either attempts to remember the

types of properties in which their clients are interested or compares written profiles of their clients with the hot sheet.

Thus, in this conventional system, the real estate agent pulls information from the MLS database. That is, the agent specifies a desired profile, and information is extracted (or “pulled”) from the MLS database, formatted, and provided to the agent.

Moreover, in conventional systems, agents must conduct searches for each of their clients individually. For example, if an agent wishes to see if any new listings or changed listings are present for four of the agent’s clients, the agent conducts a first search for the first client, and a second search for the second client, and so on. Such searching methodology is disadvantageous in that it is time consuming.

The volume of changes to the typical regional MLS database can be great. For example, new properties may be added daily, and price and other information on specific listings may be adjusted just as frequently. Buyers and sellers often demand that their agents provide notification to them as soon as such changes take place.

The Internet has changed the expectations of real estate buyers and sellers. Real estate buyers and sellers now demand more information and any information provided to be provided more quickly. Buyers and sellers want their agents to provide very specific information, to understand their needs, and to provide very fast answers to their questions.

In addition to changing the expectations of buyers and sellers of real estate in relation to speed and knowledge, the Internet has given buyers and sellers access to information that previously was available only through a real estate agent. For example, Internet services now allow real estate buyers and sellers to search MLS

information by specifying property profiles. Thus, it is increasingly important for real estate agents to provide more timely, value-added services to their clients.

In relation to communicating with clients as to which property a client is particularly interested, using conventional systems and methods, agents spend several minutes contacting each of their clients by phone, e-mail or fax to determine if the buyer likes any of the properties brought to the client's attention by the agent. The agent spends such time finding out if the buyer has seen any interesting properties in print ads or on the Internet, as well. Such conventional systems and methods are disadvantageous in that such systems and methods are time consuming and communication difficulties (e.g., not finding a mutually convenient time to talk on the telephone) often arise.

The conventional systems have further disadvantages. For example, as mentioned, such systems typically use "pull" systems, requiring the agent to pull data from a database, rather than "push" systems whereby data of interest is automatically provided to the agent (and their buyers, if desired) in a highly organized and useful manner. Moreover, conventional systems do not provide information organized in a manner that allows agents to provide the speed of response demanded by today's consumer.

While the agent is able to search for properties using a conventional computerized system, much of the organization of the search results, correlating the results with client needs, and related tasks are often conducted on paper. That is, even using the MLS computerized system, much of the agent's organizational work is conducted on paper and the agent's memory is relied on a great deal.

In order to carry out these processes using conventional means, agents must be technically proficient and must organize the information obtained in a helpful way. That is, agents must make note of date ranges of searches, recall information about clients, conduct multiple searches on a serial basis, and otherwise take various steps to organize their property search and identification process.

Agents perform comparative market analysis (CMA) using conventional systems. In conventional systems, an agent or other person searches the MLS database for past sales and current listings that are comparable to the property at issue. The searcher determines the search criteria (e.g., location).

CMAs are performed in relation to a specific property for a variety of reasons. For example, an agent may wish to become the listing agent for a property that has yet to be placed on sale. The agent may use CMAs to provide the potential seller with information and advice so that the potential seller will chose the agent as listing agent. As another example, an agent may use CMAs to determine an asking price for a property that is listed with the agent. In addition, the CMA criteria may be used to determine activity near or associated with a particular property. For example, once a house is placed on sale, the seller and the listing agent may wish to monitor the surrounding area for houses placed on sale and/or sold.

In conventional systems, an agent prepares a CMA report containing information about properties that are comparable to the property at issue. Sometimes, the CMA is conducted only once in relation to a property that is placed on sale. In other instances, a CMA will be conducted for a property that is placed on sale

sporadically to provide an update. The frequency is often determined by the agent, the seller, and available time.

Like the systems used to locate properties of interest for potential buyers, searches are typically done one property at a time, and the results are printed for future reference. In some systems, the search criteria may be saved and retrieved for future searching. The disadvantages of great time consumption and difficulty in organization, as well as other disadvantages associated with conventional buyer list systems discussed above, are present in such conventional CMA systems.

Many conventional computer-based, real-estate systems include appointment-monitoring functions. For example, when an appointment is made or changed, the data describing the appointment is printed and placed in the listing agent's mail box. Afterwards, the listing agent must call the showing agent to obtain buyer comments after a listing is shown. In some conventional appointment systems, agents may retrieve appointment information using a company appointment system computer, but such data is generally not accessible from any computer via the Internet. Such conventional systems have a variety of disadvantages. For example, printing appointment information is time consuming, costly, and inefficient. Agents must often come into the office to obtain such appointment information. Moreover, communication with the showing agent can be complicated by unavailability of the showing agent and time constraints.

There is a variety of other agent-credibility and value disadvantages in the use of conventional systems. For example, conventional systems often result in an

agent's clients becoming aware of area activity before an agent becomes aware of such activity, thereby lessening the value and credibility of the agent.

What is needed is a system and method for providing real estate information that does not include these disadvantages, and that offers other advantages.

## **Summary**

The present invention provides processes and systems for providing real-estate information using a computer network, such as the Internet. One embodiment provides a buyer information web page showing relevant buyer information in an easy-to-read, summary format. Buyer information provided includes summaries of various aspects of real estate listings needed by a real estate agent to effectively represent and assist a buyer. Potential buyer information summarized on such a web page comprises a potential buyer name, a new activity summary associated with the potential buyer name, a new views summary associated with the potential buyer name, a new tags summary associated with the potential buyer name, and a last login summary associated with the potential buyer name.

The new activity summary may comprise a number indicating the number of properties meeting a buyer profile associated with the potential buyer name that have been modified (i.e., added to an available property database (e.g., the MLS database or similar database having property information) or that have been changed in the available property database) since a previous view of a new activity web page associated with the potential buyer name by the agent. The new activity web page comprises a list of properties meeting the buyer's profile criteria. Also, the new







computerized system that allows buyers to input search criteria (e.g., price range, minimum number of bedrooms, minimum number of bathrooms, and minimum square footage), to receive a list of properties meeting the search criteria, and to view detailed property information in relation to the properties on the list selected by the buyer. The sub-system accesses a property information database to provide such information to the buyer. Such a system is accessible by the buyer via the Internet. In an embodiment, the buyer's agent provides the buyer with access to the online property information viewing system. The buyer's activity using the online property information viewing system is monitored and recorded.

In an embodiment, the information shown on the buyer information web page is organized into a grid, comprising rows and columns. One embodiment comprises a buyer name column comprising the potential buyer name and a new activity column comprising the new activity information (e.g., a new activity summary). The grid may also include a new tags column comprising the new tag information (e.g., a new tag summary) and a new views column comprising the new views information (e.g., a new views summary).

The new activity summary comprises a hyperlink, and a new activity web page is provided upon activation of the hyperlink. As mentioned, the new activity web page summarizes properties falling within a potential buyer profile associated with the potential buyer name. The profile comprises criteria, such as price range, number of bedrooms, and geographic area, and features desired or required by the buyer. The list of properties provided includes at the top of the list properties added to the list

after the last viewing of the list by the real estate agent, and the added properties are highlighted as well, e.g., by change of color or with an icon.

In an embodiment, the new tags summary also comprises a hyperlink. The hyperlink is linked to a new tags web page which, as mentioned, comprises a list of properties of interest selected (or “tagged”) by a person associated with the potential buyer name or by a real estate agent. Like the new activity list, the list of properties of interest shows at the top of the list properties added to the list after the last viewing of the list by the agent, and the added properties are highlighted. The new views summary likewise comprises a hyperlink linked to a new views web page comprising, as mentioned, a summary list of properties viewed in detail by the buyer using the online property information viewing system.

associated with the property identifier by the agent. The search may also be limited to pre-defined profile criteria and a pre-defined time range. The new area activity summary also comprises a date indicating the earliest date that a property in the pre-defined area underwent one of the pre-defined events since a previous view of the area activity web page associated with the potential buyer name by the agent. The date comprises the earliest date of modification (change or addition) date associated with the property(ies) in the property database that were added to the database or changed in the database, that are within the pre-defined area, and that meets the pre-defined search criteria, and were modified after the previous view of the area activity web page associated with the buyer name by the agent.

The new appointments summary comprises a new appointments number indicating the number of appointments carried out in relation to the property associated with the property identifier since a previous view of a new appointments web page associated with the property identifier. The seller accounts summary comprises identification of an owner of the property associated with the property identifier. The new appointments summary may also comprise a date that reflects the earliest appointment in the appointments database that is after the previous view of the new appointments web page.

Like the buyer list web page embodiment discussed, an embodiment of the CMA list web page is organized in a grid having rows and columns. The columns include an area activity column comprising the new area activity summaries, and an appointments column comprising the new appointments summaries. Such summaries

comprise hyperlinks linked to an area activity web page and an appointments web page, respectively.

The area activity web page comprises a list of properties within a pre-defined profile (e.g., price range, geographic area, builder, number of bedrooms, and square footage) undergoing a pre-defined event (e.g., an addition to a property database and a change in status, such as a sale) in a pre-defined time period (e.g., last thirty days).

The new appointments web page comprises a list of appointments carried out in relation to the property associated with the property identifier. The newly-added properties on the area activity web page and the newly-added appointments on the appointments web page are shown at the top of the list and are highlighted.

Embodiments of the present invention offer a variety of advantages. Importantly, embodiments save many hours of work by real estate agents by automating property information functions and by offering easily-viewable, summary information helpful to real estate agents.

In relation to searching for new property activity for buyers, embodiments of the present invention automatically checks for new listings and/or listing changes for all of an agents' buyers, including searching from the last time the agent checked listings for each buyer. If new listings and/or listing changes are found, a hyperlink with the number of unseen properties and their earliest date is displayed.

Embodiments allow agents to avoid spending time selecting properties to send to each buyer. Moreover, agents and their buyers are better informed while using less of the agents' time.

In relation to receiving communication from a client as to which property the client is particularly interested, embodiments of the present invention offer computerized "tagging" methods whereby buyers indicate properties of particular interest and links to the indicated properties are automatically provided to the agent in a convenient format. Such embodiments and similar embodiments provide time savings to agents, are less disruptive to buyers, and speeds and improves communication between agents and their clients.

Another advantage of the present invention is that embodiments allow agents to provide their customers with a private web-based service that is monitored for the agent's benefit. A further advantage of the present invention is that embodiments provide agents a means of determining their clients' true interests by monitoring the properties viewed by their clients using a property information system provided by the agent. A still further advantage of the present invention is that embodiments allow agents to determine the last date on which a client logged into a property information system, and thereby determine which buyers are likely to buy and which buyers are merely browsing.

The inclusion of an appointment activity summary in embodiments of the present invention offers the advantage of time savings for agents. For example, agents may obtain appointment information via the Internet, rather than visiting the office. Moreover, staff time and costs are reduced in that printing cost and office staff time in printing appointment information is eliminated.

Another advantage of the present invention is that embodiments automatically check for area activity (e.g., new listings and/or listing changes) for all of an agents'

CMA properties, and a summary of such activity is provided. Moreover, using such embodiments allows agents to obtain much time savings and to receive area activity information quickly, thereby allowing the agent to provide increased value to their clients.

Additional objects, advantages, and novel features of the invention will be set forth in part in the description which follows, and in part will become more apparent to those skilled in the art upon examination of the following, or may be learned by practice of the invention.

#### **Brief Description of Figures**

FIG. 1 shows a block diagram of an embodiment of a system according to the present invention.

FIG. 2 shows an embodiment of a buyer information (or buyer list) web page according to the present invention.

FIG. 3 shows an embodiment of a new activity web page according to the present invention.

FIG. 4 shows an embodiment of a tagged list web page according to the present invention.

FIG. 5 shows an embodiment of a buyers search results web page according to the present invention.

FIG. 6 shows an embodiment of a property detail web page according to the present invention.

FIG. 7 shows an embodiment of a viewed list web page according to the present invention.

FIG. 8 shows a flow diagram comprising an embodiment of steps used to provide a buyer list web page according to the present invention.

FIG. 9 shows an embodiment of a CMA list web page according to the present invention.

FIG. 10 shows an embodiment of an area activity web page according to the present invention.

FIG. 11 shows another embodiment of a CMA list web page according to the present invention.

FIGS. 12-15 and 16A and 16B show an embodiment of data tables used in an embodiment of the present invention to provide a buyer list web page and associated web pages according to the present invention.

FIGS. 17-18 and 19A and 19B show an embodiment of data tables used in an embodiment of the present invention to provide a CMA list web page and associated web pages according to the present invention.

### **Detailed Description**

Embodiments of the present invention comprise systems and processes for providing real-estate information via the Internet. FIG. 1 shows a diagram of an embodiment of a system according to the present invention.

FIG. 1 shows a web server 10 connected to the Internet 16. The web server 10 comprises a web site 12 and various database, communications, and other





The server 10 is also in communication with a property data database 24 (also called the “for sale” database). Periodically, the server 10 accesses the MLS database 22, retrieves any updated information, and writes the data from the MLS database 22 to the property data database 24. Thus, the property data database 24 comprises the data from the MLS database.

The server 10 also includes an online property information viewing system 11. In a preferred embodiment, the property information viewing system 11 comprises two sub-systems for obtaining property information. The first, or primary, sub-system comprises a system whereby the buyer 20 is provided access to search results showing property information that is the result of a comprehensive set of search criteria entered by the agent 18 for the buyer 20. The search criteria entered by the agent for the buyer 20 is saved and the results updated when the buyer 20 logs into the viewing system and activates a request for the first system (e.g., by a clicking on a hyperlink). The second sub-system in the property information viewing system 11 comprises a computerized system that allows buyers to input search criteria (e.g., price range, minimum number of bedrooms, minimum number of bathrooms, and minimum square footage), to receive a list of properties meeting the search criteria, and to view detailed property information in relation to the properties on the list selected by the buyer. The sub-system accesses a property information database 24 to provide such information to the buyer. Such a system 11 is accessible by the buyer 20 via the Internet 16. In an embodiment, the buyer's agent provides the buyer with access to the online property information viewing system. The buyer's activity using the online property information viewing system 11 is monitored and recorded. For



Upon receiving the log-in name and password from the agent's computer 18, the server 10 examines the name and password to determine if they are valid. If so, the server 10 allows the computer 18 to access the web site 12. In the embodiment shown, the server 10 determines that the user name and password are valid, and allows access to the web site 12.

The server 12 provides a web page to the agent 18 inquiring whether the agent wishes to access a buyer list or whether the agent wishes to access comparative market analysis (CMA) functionality. In embodiments, the server 12 also inquires if the agent 18 would like access to other services via the web site 12. In the embodiment shown, the agent 18 indicates that the agent 18 would like to access the agent's buyer list by activating a designated hyperlink.

On receiving an indication that the agent 18 would like to access the agent's buyer list, the server 10 provides the buyer list to the agent 18 in the form of a buyer information web page. The server 10 does so by accessing the databases 26 having information associated with the agent and the buyers on the agent's buyer list, constructing a buyer information web page according to a pre-stored format, and sending the buyer information web page to the agent 18.

A buyer information (or buyer list) web page 39 is shown in FIG. 2. The buyer information web page 39 comprises potential buyer information 40 in summary format. The potential buyer information 40 shown in FIG. 2 comprises a grid of eight potential buyer names 41 (the names entered earlier by the agent) and summary information associated with each of the eight potential buyer names 41. The pre-stored format is stored on the server 10. Database applications and web-page

construction applications 14 carry out the accessing of data in the databases 26 and the construction of a web page.

The code for constructing the format comprises code for constructing a grid as shown in FIG. 2. Moreover, the format provides that the summaries or names in the buyer name column 50, the new activity column 52, the new tags column 54, and the new views column 56 comprise hyperlinks to associated web pages.

Referring to the buyer name of Jennifer Gray as an example in FIG. 2, the potential buyer information 40 comprises a potential buyer name 42 and a new activity summary 44 associated with the potential buyer name of Jennifer Gray 42. The information 40 also includes a new tags summary 47 associated with the potential buyer name of Jennifer Gray 42, and a last login summary 48 associated with the potential buyer name of Jennifer Gray 42.

As another example, referring to the buyer name of Mark and Mary Jones 60, the potential buyer information 40 comprises a new activity summary 62 associated with the potential buyer name of Mark and Mary Jones 60. The information 40 also includes a new views summary 64 associated with the buyer name of Mark and Mary Jones 60, and a last login summary 66 associated with the potential buyer name of Mark and Mary Jones 60.

Referring again to the Jennifer Gray buyer name 42, the new activity summary 44 comprises a new activity number 45 indicating the number of properties meeting the buyer profile of Jennifer Gray that have been added to the property database 24 since a previous view by the agent of a new activity web page associated with Jennifer Gray. The new activity summary 44 also comprises a date indicating the



(i.e., falls within) the buyer profile (e.g., price range) associated with the buyer name of Jennifer Gray. In the embodiment shown in FIG. 3, all properties, including all newly-listed or changed properties, that fall within the buyer profile of Jennifer Gray is provided in the web page (or web pages) provided upon activating the new activity summary link 44. In other embodiments, just the newly-listed or changed properties may be shown on the new activity web page.

The properties added to the list of properties falling within the profile after the last viewing of the list by the agent are provided at the top of the list, before properties that were present in the list the last time that the agent viewed the list. For example, in the list shown in FIG. 3, fourteen property summaries would be provided at the top of list as indicating newly-added properties. In certain embodiments, the properties added to the list after the last viewing of the list by the agent are both listed at the top and highlighted in some manner, e.g., with a different color background, an alert icon, or other highlighting means.

When preparing the buyer information web page 39, the server 10 constructs the new activity summary 44 by accessing the buyer database 28 which includes the date on which the agent last accessed the new activity web page associated with Jennifer Gray, and then accessing the property data database 24 to determine the number of properties that meet Jennifer Gray's profile that have been added or changed since that date. The MLS database 22 and the property data database 24 includes a date stamp indicating the date a particular property profile was added or changed. Once such dates for the properties meeting Jennifer Gray's profile and number of new activity (post-web page viewing) listings meeting Jennifer Gray's

profile are identified, the server 10 selects the earliest of the dates as the number to place in the new activity summary, and the server 10 places the number and the date in a hyperlink, and provides the summary 44 in the new activity column 52 as shown in FIG. 2.

When viewing property summaries for a particular buyer name, the agent can “tag” certain properties of interest. For example, when viewing the new activity web page for Jennifer Gray shown in FIG. 3, the agent can click a “Tag” check-box 72 associated with a particular property. By tagging a particular property, the property is added to a list of tagged properties for Jennifer Gray. In the embodiment shown, when a buyer “tags” a property, an e-mail alert is sent to the buyer’s agent notifying the agent that the buyer has tagged the property. Additionally, when the agent “tags” a property for a buyer, an e-mail alert is sent to the buyer notifying the buyer that the agent has tagged a property.

Buyers may also access the new activity web page and tag properties of interest (sometimes called a “Home Finder Report”). Buyers access the web site 12 via the Internet 16 in a manner similar to the agents’ access. For example, Jennifer Gray and other buyers on the buyer list 41 may access the page shown on FIG. 3 (or a similar page) and tag properties of particular interest. The MLS number or other pointer associated with a tagged property is stored in a tags database 30 in association with the buyer name (the tags database 30 is also called the “userstate database”).

For example, if Mary Doe or the agent 18 access a property list for Mary Doe and tag a particular property (e.g., a property at 8927 Scotch Heather Way), a MLS



number or other pointer is stored by the server 10 in the tags database 30 in association with the buyer name Mary Doe.

Referring to FIG. 2, the new tags summary 55 comprises a new tags number 57 indicating the number of properties tagged by Mary Doe using an online property information viewing system accessible by Mary Doe since a previous view of the new tags web page associated with Mary Doe (shown in FIG. 4). When preparing the buyer information web page 39, the server 10 constructs the new tags summary 55 by accessing the buyer database 28 which includes the date on which the agent last accessed the new tags web page associated with Mary Doe, and then accessing the new tags database 24 to determine the number of properties that have been tagged by either the agent or Mary Doe in associated with Mary Doe's profile since that date. The server 10 then determines the date of the earliest-tagged property since the last time the agent examined the new tags web page associated with Mary Doe. Only the properties tagged by the agent when working with Mary Doe's profile are included (i.e., the properties tagged by the agent when working with others' profile are not included). The properties tagged by the agent for other buyers are not included in Mary Doe's list. Once the date of the earliest-tagged property and number of new tags have been determined by the server 10, the server 10 places the number and the date in a hyperlink, and provides the summary 55 in the new tags column 54 as shown in FIG. 2.

Referring to FIG. 2, the new tag summary 54 for Mary Doe indicates that one property has been added to the new tags database by the buyer since the last date the agent viewed the new tags web page associated with Mary Doe. The summary 54

also indicates that October 10, 2000, was the date on which Mary Doe tagged the property. The October 10 date is the date of the earliest changed information after the last view of the web page.

As another example, the summary associated with Jennifer Gray 47 indicates that three new tags have been added to the new tags database 30 by the buyer since the last date on which the buyer viewed the new tags web page associated with Jennifer Gray (assume the last date on which the buyer viewed the new tags web page associated with Jennifer Gray was October 5, 2000). The summary 47 also indicates that the first of the three new tags added by the buyer was added to the new tags database 30 on October 10, 2000.

A new tags web page 80 is shown in FIG. 4. The new tags web page 80 shown is for Mary Doe, and is the page reached when clicking on the new tags hyperlink 55. The new tags web page 80 is constructed by the server 10. To do so, the server 10 accesses the tags database 30 to determine the MLS number(s) or other pointer(s) indicating the properties tagged for Mary Doe by Mary Doe or the real estate agent. Once these pointers are determined, the pointers are used to obtain information from the property data database 24 regarding each property indicated by the pointer(s). Once this information is obtained, the information is formatted as shown in FIG. 4 and provided to the requesting client computer, e.g., the agent 18.

The client / customer 20 is provided access to an online property information system by the server 10 via the Internet 10. The information system is provided in the web site 12 residing on the server 10. The agent 18 provides the client / customer 20 access to the web site 12 by creating a profile for the client / customer, and the server



The client / customer 20 may then select one or more properties in the search results list for examination of further details regarding that property. For example, Mark and Mary Jones may activate (e.g., click on) the hyperlink 94 associated with 5908 Carriage Oaks Drive to examine further details regarding that property. When Mark and Mary Jones activates the hyperlink 94, two activities take place. First, the online system 11 accesses data in the property data database 24 associated with 5908 Carriage Oaks Drive, formats the data into the web page 96 shown in FIG. 6, and provides the web page to Mark and Mary Jones at their client computer 20 via the Internet. Second, the online system 11 records Mark and Mary Jones's view of the details of the Carriage Oaks property in the views database 30. For example, the MLS number of the Carriage Oaks Drive property is recorded as a "new view" in the views database 30 in association with the Mark and Mary Jones buyer name. Referring to FIG. 5, the Mark and Mary Jones buyer also clicks on the 9740 Faires Farm Road hyperlink 96 and views the details of the Faire Farm Road property. The online system 11 also records this "new view" in the new view database 32. The "new views" in the embodiment discussed reflects a view by the customer / client of the details of a particular property. A viewing of summary data, as shown in FIG. 5, is not recorded in the new views database, but a viewing of the details associated with a property, as shown in FIG. 6, is recorded as a new view.

Also shown in FIG. 6 is an example of tagging. In FIG. 6, Mark and Mary Jones have “tagged” the property at 5908 Carriage Oaks Drive by clicking the checkbox 92 associated with the property.

Referring again to FIG. 2, when the server is creating the web page 39, the server creates a new views summary for each buyer in the buyer list for which there are new views. For example, the Mark and Mary Jones user has carried out new views not viewed by the agent, and a new views summary 64 is created for Mark and Mark Jones. The new views summary 64 comprises a new views number 65 indicating the number of properties viewed by Mark and Mary Jones using the online information system since a previous view of the new views web page 98 associated with Mark and Mary Jones (shown in FIG. 7).

When preparing the buyer information web page 39, the server 10 constructs the new views summary 64 by accessing the buyer database 28 to determine the date on which the agent last accessed the new views web page associated with Mark and Mary Jones, and determining the date of the earliest of the new views that occurred after the agent last accessed the new views web page associated with Mark and Mary Jones. The server then accesses the new views database 32 to determine the number of properties that have been viewed by Mark and Mary Jones in association with Mark and Mary Jones' profile since the date of the last access of the new views web page. Once this date and number of new views have been determined by the server 10, the server 10 places the number and the date in a hyperlink, and provides the summary 64 in the new views column 56 as shown in FIG. 2. In the new views summary 64, it is shown that eleven properties have been viewed by Mark and Mary Jones since the last date on which the agent viewed the new views web page. The earliest new view that occurred after the date of the last date on which the agent last viewed the new views web page is October 14, 2000.



date indicating the last time the person associated with the potential buyer name used the online property information system provided by the server. For example, the last login summary for Jennifer Gray 48 indicates that the last time and date that Jennifer Gray logged into the online property information system provided by the server was 11:10am on October 10, 2000. The last login summary for Mark and Mary Jones 66 indicates that the last login for Mark and Mary Jones was 12:37pm on October 26, 2000. If the person associated with the buyer name has not yet logged in, the last login summary indicates "Not yet," and if the buyer has not yet been given access to the online property information system, the login summary gives an indication, such as "- -," "Not Provided Access," or some other indicator.

The server determines the data used in the last login summary by accessing the buyer database 26. When a buyer logs in, the date and time is stored along with the buyer name, and the server 10 retrieves this information in constructing the last login summary.

As shown in FIG. 2, and as described above, the buyer information web page 39 comprises a grid – a group of rows and columns. Each row is associated with a particular buyer name. The buyer names comprise hyperlinks that link to an options menu page for each buyer that links to reports and services for each buyer, or that links to other information about the buyer. The columns comprise a new activity column 52 which shows the new activity summary for each buyer, a new tags column 54 comprising the new tag summaries for each buyer, a new views column 56 comprising the new views summary for each buyer, and a last login column 58

comprising the last login summary for each buyer. Each of the summaries comprises a hyperlink that links to an associated web page.

FIG. 8 shows a simplified flow diagram of some of the steps according to the present invention described above. The processor / server receives a request for a buyer list from an agent 101. The server 10 retrieves a list of all buyers associated with the agent requesting the buyer list from the buyer database 102. The server 10 then carries out the steps shown in items 104-106 for each of the buyers in the retrieved buyer list.

First, the server 10 checks the property data database for properties that match the first buyer's criteria and that either came on the market or changed since the last time the agent examined the buyer's home finder report (a summary list of properties meeting the buyer's criteria) 104. Second, the server checks for properties that the first buyer tagged since the last time the agent examined the first buyer's Tagged List (a summary list of properties tagged as being of particular interest by the buyer or the agent) 105. The server checks the tags database 30 for such properties, which is the database in which at least a pointer to tagged properties is stored. Third, the server checks for properties the first buyer viewed since the last time the agent examined the buyer's Viewed List (a summary list of properties for which the buyer viewed a detailed information web page).

The server then repeats these steps 104, 105, 106 for each buyer in the list of buyers associated with the agent. Once the steps have been completed for each buyer, the server formats the buyer list web page (e.g., as shown in FIG. 2) 107 and provides the web page to the agent's browser for display 108.



Embodiments of the present invention offer comparative market analysis (CMA) functionality as well. Referring again to FIG. 1, after the agent 18 logs into the web site 12, the web site 12 receives an indication (e.g., by a hyperlink) that the agent 18 would like to access the agent's CMA list. Upon receiving the indication, the server 10 provides a comparative market analysis (CMA) list web page showing subject property information to the agent 18.

An embodiment of a CMA list web page 110 is shown in FIG. 9. The web page 110 provides summary information useful to a real estate agent in listing a property for sale. The web page 110 includes a list of properties of interest to the agent (called "subject properties") 114.

The real estate agent has previously identified to the web site 12 the subject properties. For example, in an embodiment, the real estate agent identifies the subject properties by filling out a property description form, selecting properties of interest from a list of properties, indicating the MLS number in a form field provided by the web site, or by other means. For example, referring to the list of subject properties 114 in FIG. 9, the real estate agent 18 has previously indicated the seven property addresses shown as subject properties. A pointer to each of the subject properties is stored in the CMA Property database 39 in the CMA Services database 38. The pointers are stored in association with the real estate agent's user name for retrieval.

Referring to FIG. 9, the CMA list web page 110 comprises subject property information 112 comprising property identifiers for each of the subject properties 114 and an area activity summary associated with each of the property identifiers (e.g., the summary shown as "1 [10-12-2000]" 132 associated with the Mordred Lane

property). The embodiment shown of the CMA list web page 110 in FIG. 9 also includes a seller accounts summary associated with each of the property identifiers (e.g., the summary shown as “Bob Milman” 138 associated with the Mordred Lane property), and a last login summary (e.g., the summary shown as associated with the property identifier for the Mordred Lane property 140 in FIG. 10).

The server 10 creates the CMA list web page 110 provided to the agent 18 by accessing the appropriate databases and placing the pre-designated data in a template in the form shown in FIG. 9.

When preparing the CMA list web page 110, the server 10 accesses the CMA property database 39 to determine all of the CMA properties designated by the logged-in agent. The property identifiers for each of these properties is placed in the CMA property column 120 as shown in FIG. 9.

Also, when preparing the CMA list web page 39, the server 10 constructs the area activity summary 132. The area activity summary comprises a new area activity number (e.g., item 134) indicating the number of properties in a pre-defined area undergoing a pre-defined event (e.g., an addition to the property database or a change in status, such as a sale, drop in price, or other change within a pre-defined time period) since a previous view of a new area activity web page associated with a property identifier.

The server constructs the area activity summary 132 by accessing the CMA Property database 39 which includes the date on which the agent last accessed the area activity web page associated with 6929 Mordred Lane, and then by accessing the property data database 24 to determine the number of properties that fall within a pre-

designated area and pre-designated criteria that have been added to the database 24, or that have changed, since that date. The MLS database 22 and the property data database 24 includes a date stamp indicating the date a particular property profile was added or changed, and includes geographic, neighborhood, and other area information. The earliest of these data stamps that occurred after the last access of the area activity web page is used as the date for the summary hyperlink. Once this date and number of new area activity listings are determined, the server 10 places the number 134 and the date 136 in a hyperlink, and provides the summary 132 in the new area activity column 122 as shown in FIG. 9. For example, since the agent last viewed the area activity web page associated with the Mordred Lane property on October 5, one new property has been added to the database 24 (or changed in the database) that is in the Mordred Lane area and fits the pre-defined property profile, and that property was added on October 12, 2000.

That is, the summary 132 indicates that one property meeting the pre-defined area and criteria has been added to the property database 24 since the agent last viewed the new area activity web page. It should be noted that this addition is the only activity occurring with the area in the last thirty days. The date (October 12, 2000) indicates the date the property was added to the database since it is the only property. If it were not the only property, the earliest addition or change date of the properties would be shown. The date 136 indicating the date of the previous view of the new area activity web page associated with the Mordred Lane property is shown as "10-12-2000," but may be in any format.

The new area activity summary comprises a hyperlink that, when activated, causes the server 10 to construct a new activity web page and to send the web page to the agent 18. An example of a new area activity web page is shown in FIG. 10. The new area activity web page 140 provides a summary of new activity in a pre-designated area around the property of interest, i.e., the Mordred Lane property.

Referring to FIG. 10, an area activity web page 140 is shown for the Mordred Lane property. The web page 140 shows one property 142 for the Mordred Lane property in the property data database 24. Note that this property 142 is the one “new” (i.e., post-October 12, 2000) property noted in the area activity summary 132 shown in FIG. 9. If there were other properties in the database 24, they would be listed on the new activity web page 140 as well. In the embodiment shown, the new properties are listed at the top of the list in the new activity web page 140. In other embodiments, the new properties are highlighted using background color, background graphics, an icon, or other highlighting.

The server creates the area activity web page by accessing the property data database 24 and retrieving summary information regarding each property in the database in a pre-defined area (e.g., street, neighborhood, area defined by an algorithm, or other definition) undergoing a pre-defined event (e.g., an addition to the property database or a change in status, such as a sale, drop in price, or other change). The property data found is formatted as shown in FIG. 10. All of the properties that fit the profile are summarized on the area activity web page, and those properties that have undergone a pre-defined event since a previous view of the new area activity web page associated with a property identifier by the agent are listed at the top.

In other embodiments, the area activity summary and the area activity page comprises properties meeting pre-defined criteria, such as price range, geographic area, builder, number of bedrooms, and square footage. That is, the area activity inquiry may include many factors.

The CMA list web page 110 also includes a seller accounts summary 138 associated with the Mordred Lane property identifier 130. In the embodiment shown, the seller accounts summary comprises the name of the owner of the property if the owner has signed up for a service offered by the web site 10 for sellers and the designation “- -” if the seller has not.

The seller accounts summary is constructed for each property identifier in the list 114 by accessing the seller accounts database 37 to determine if a seller associated with the CMA list property has been given access to the web site 12. The seller accounts database 37 comprises the profiles of registered sellers, including their property identifier, as entered by the real estate agent 18. For example, the server 10 accesses the seller accounts database 37 and finds that the seller name associated with the Mordred Lane property is “Bob Milman,” and the name “Bob Milman” is used as the seller account summary 138 associated with the Mordred Lane property.

Similarly, the CMA list web page 110 comprises a last login summary for each listed property. For example, the last login summary for the Mordred Lane property comprises “07:53pm 11-01-2000” 141. This summary indicates that last time and date that the seller associated with the subject property logged into a service offered by the web site 10. For example, the last login summary mentioned 141 indicates that Bob Milman, the owner associated with the Mordred Lane property, last logged into



summary indicates the number of appointments (three) 158 carried out in relation to the property associated with the property since the last time the agent 18 viewed a new appointments web page associated with the property (10-12-2000). The summary 156 indicates that three appointments have been added to an appointments database 35 since the last date the agent viewed a list of appointments online. The date (October 12, 2000) indicates the earliest of the three appointments in the database. In other words, October 12 reflects the earliest appointment added to the database since the agent's last view of the appointments web page.

The appointments database 35 is in communication with an appointments system that receives notification of visits to a listed property, whether receiving through manually entering appointments, communication from an electronic key box or through e-mail or other electronic communication. The received appointments, and associated data (e.g., name of showing agent, date and time of visit, and comments of the potential purchaser(s)) is recorded in the appointments database 35. Also recorded in the appointments database is the last date and time which the agent viewed a web page listing the appointments carried out in relation to the property. In an embodiment, when the server 10 receives notice of a new appointment from the appointments system 36, in addition to recording the information regarding the appointments in the appointments database 35, the server 10 sends an e-mail to the listing agent.

The server 10 examines the data in the appointments database 35 in constructing the appointments summary. The server 10 examines the CMA property database 39 to determine the last date the agent viewed the appointments web page

offered on the web site 10 and to determine the number of appointments carried out since that date. The appointments web page comprises a web page linked to the appointments summary 156 that shows data from the appointments database 35 describing the various appointments carried out in relation to the subject property. For example, the appointments summary hyperlink 156 associated with the Falmouth Road property links to an appointments web page describing various aspects of appointments kept by potential buyers to view the Falmouth Road property, such as date, time, showing agent, and comments by showing agent. The appointments web page is constructed using data from the appointments database 35. Like the previous web pages discussed, the new appointments (those occurring after the last time the web page was viewed by the agent) are listed first and highlighted, and the others are listed below the new appointments.

FIGS. 12-16 show database tables used in an embodiment of the buyer list aspect of an embodiment of the present invention as shown in FIG. 1. Each of the tables in FIGS. 12-16 shows a column name (or data field name), type of data in the column, length of the data in the column, and a brief description of the data in the column. Referring to FIG. 1 and the database tables shown, FIG. 12 shows a database table in the buyer database 28. The table includes information about the buyers associated with an agent. FIG. 13 shows a database table also in the buyer database 28. The table includes profile information about buyers. FIG. 14 shows a database table in the views database 32 which includes information on full-information views carried out by buyers. FIG. 15 shows a database table in the tags database 30, including pointers to properties tagged by buyers.



